Headquarters

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CONFIGURATION MANAGEMENT PLAN (CM PLAN)

March 4, 1985

MEMORANDUM FOR: Mr. Fitzwater

FROM: [redacted] STAT
Chief, Configuration Management Staff, HOME, OL

SUBJECT: Issuance of Configuration Management Plan, H90001

1. The Headquarters Management Board (HMB) on 4 March 1985 approved the Headquarters Configuration Management Plan (CMP) which is distributed with this letter.

2. The CMP sets forth the operating policy and procedures that will guide configuration management (CM) activities at Headquarters. It describes the structure which supports CM, the documentation which defines the identification and publication of controlled items, and the processes to be followed when changes to controlled items are requested. STAT

3. If you have any questions concerning this CMP, or wish additional copies, please contact the undersigned by calling [redacted] or contacting the Configuration Management Secretariat (CMS) in room 3E-14 Headquarters. STAT

[redacted] STAT

Att: a/s

OL-10054-85

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HEADQUARTERS

CONFIGURATION MANAGEMENT PLAN

4 March 1985

DOCUMENT NO. H90001

TITLE : HEADQUARTERS CONFIGURATION MANAGEMENT PLAN

REV	DATE	REV BY	PAGES AFFECTED *	REMARKS
	4 Mar 85	HMB	Initial Issue	None

* Deleted page(s) (d); added page(s) (a); no marking for superceded pages.

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SECTION 1

1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this configuration management plan is to define policy and procedures regarding configuration management activities at the Headquarters Facility. It describes the organizations and functions which are responsible for configuration management, the documentation which describes the items under control, and the processes to control changes to that documentation.

1.2 SCOPE

This plan establishes the configuration management requirements for documenting and controlling changes to headquarters facilities in order to ensure proper (a) identification and documentation of the functional and physical characteristics, (b) control of changes to those characteristics, and (c) recording and reporting approved changes and the status of their implementation.

Control of the configuration management process requires a management structure with sufficient authority and responsibility to ensure compliance. The plan, therefore, delineates the management structures and positions which will be involved in various configuration management tasks. These include configuration management boards, an evaluation/integration function, board secretariat, element chiefs, and other headquarters personnel. The plan also includes a priority system to aid in the management of the CM process.

The requirements cited herein are approved by the Headquarters Management Board (HMB) and supplemented through implementing instructions as required.

SECTION 2

2.0 APPLICABLE DOCUMENTS AND ACRONYMS

2.1 DOCUMENTS

The following documents are guidelines for this plan and are applicable only to the extent cited. In the event of a conflict between this plan and the referenced documents, this plan will apply.

Headquarters Configuration Management Secretariat (CMS) Instruction
Headquarters Project Control Plan
Headquarters Facility Modification Plan (FMP) Instruction
Headquarters Request for Change (RFC) Preparation and Processing Instruction
Headquarters Facility Planning Staff (FPS) Organization and Operations Plan
Headquarters Controlled Document Preparation Instruction

2.2 ACRONYMS

A&E	-	Architectual & Engineering
CI	-	Configuration Item
CM	-	Configuration Management
CMBD	-	Configuration Management Board Directive
CMS	-	Configuration Management Secretariat
E	-	Emergency
FBD	-	Facility Baseline Document
FMB	-	Facilities Management Board
FMP	-	Facility Modification Plan
FRD	-	Facility Requirements Document
HBD	-	Headquarters Board Directive
HMB	-	Headquarters Management Board
HOME	-	Headquarters Operations, Maintenance and Engineering Division
ICD	-	Interface Control Document
IDR	-	Interface Drawing Requirement
LAN	-	Local Area Network
R	-	Routine
RFC	-	Request for Change
U	-	Urgent

SECTION 3

3.0 HEADQUARTERS ORGANIZATION AND RESPONSIBILITIES

The structure which is responsible for configuration management, project control, and document management is depicted in Figure 1. The responsibilities of the configuration management organizations are shown below.

3.1 HEADQUARTERS MANAGEMENT BOARD (HMB)

3.1.1 HMB MEMBERSHIP

The HMB members are as follows:

Chairman:	Executive Director
Vice-Chairman:	Deputy Director for Administration
Members:	Deputy Director for Intelligence
	Deputy Director for Operations
	Deputy Director for Science and Technology

Other individuals may be requested to attend board meetings as consultants to the board at the direction of the chairman. In the absence of the Chairman, the vice-chairman will serve as Acting Chairman, per the Chairman's instructions.

3.1.2 HMB RESPONSIBILITIES

The HMB has ultimate responsibility to control all headquarters facility items under control of the configuration management system identified in tables 1-3 of this plan. To the extent shown below, this authority has been delegated to the Facilities Management Board (FMB), and the Office Chiefs. The HMB will review and provide direction on proposed changes (RFCs) to the documents under their control as specified in Section 4. Each board member will assist in this effort by providing advice and recommendations regarding each change. The Chairman of the HMB has approval authority for these proposals. Any action taken by any other configuration control board may be appealed to the HMB.

3.2 FACILITIES MANAGEMENT BOARD (FMB)

3.2.1 FMB MEMBERSHIP

The FMB members are as follows:

Chairman	Chief, Headquarters Operations, Maintenance and Engineering Div. (HOME), OL
Vice-Chairman	Deputy Chief, HOME, OL
Members	Representative, Directorate for Intelligence
	Representative, Directorate for Operations
	Representative, Directorate for Science and Technology
	Representatives from Office of Communications, Office of Information Technologies, Office of Logistics, Office of Security, and the Safety Staff/OMS

Other individuals may be requested to attend board meetings as consultants to the board at the direction of the chairman. In the absence of the Chairman, the Vice Chairman will preside at FMB meetings.

3.2.2 FMB RESPONSIBILITIES

The FMB, per HMB delegation, has the configuration management responsibility for all Headquarters items which meet the appropriate criteria specified in Section 4. Final disposition for all FMB actions will be made by the presiding Chairman based on the advice of the board members. Each board member will assist by providing recommendations regarding each item reviewed.

3.3 OFFICE CHIEFS

Each Office Chief, per HMB delegation, has configuration control responsibility for those items which meet the appropriate criteria specified in Section 4. In addition, each Office Chief, through concurrence signature, controls the submittal of RFCs to the FMB and HMB. Change implementation authority for controlled configuration items ultimately resides with the appropriate Office Chief, although this authority may be delegated. Office Chiefs shall, as appropriate, provide to CMS technical support to assist in evaluating proposed changes to configuration controlled documentation.

3.4 CONFIGURATION MANAGEMENT SECRETARIAT (CMS)

The CMS is responsible for providing administrative support to the HMG, FMG and Office Chiefs in matters pertaining to configuration, documentation, or project management. This support includes the preparation of meeting agendas, minutes, and schedules; the issuance of the necessary implementing instructions, the maintenance of status records; the issuance of status reports; the monitoring of RFC-related activities; the maintenance of specified controlled documents; and the maintenance of the Headquarters Master Schedule, appropriate project schedules, and the associated milestone reporting system.

The CMS is responsible for supporting the HMB, FMB and Office Chiefs in all matters pertaining to the integration of proposed changes into the current Headquarters Configuration Management Baseline. In addition, CMS will act as the technical arm of HMB and FMB by: (1) assessing each change requiring approval to ensure the facility integration of the change; (2) reviewing all implemented RFCs and directing closure, when appropriate; and (3) when provided, reviewing non-Headquarters RFCs so that advice can be given regarding the potential impact on Headquarters operations.

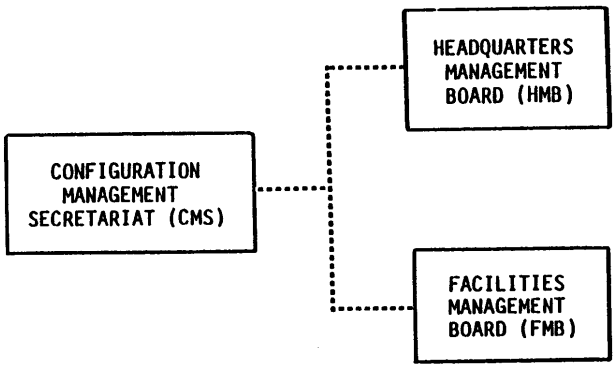

Figure 1. HEADQUARTERS CONFIGURATION MANAGEMENT CONTROL STRUCTURE

SECTION 4

4.0 BASELINE CONTROL

4.1 BASELINE DEFINITION

The Headquarters Configuration Management Baseline consists of a set of technical documentation (e.g., specifications, drawings, plans, and manuals) which define Headquarters's current operational capability and specified documents which describe new or changed capabilities under development. Since the in-place hardware and facility items reflect the implementation of the technical documentation they are, by extension, included in configuration control.

4.2 BASELINE MANAGEMENT

Within the broad context of baseline management, four primary tasks need to be accomplished. These tasks include (1) overall direction and review/approval cycle, (2) initial documentation preparation, (3) custodianship (i.e., document maintenance), and (4) document status accounting.

Initial documentation preparation, whether a complete document or change pages will normally be accomplished by the individual or component submitting the change (via an RFC). After board approval, the preparation and distribution of the change package will be accomplished by the custodian of the document. The last task, document status accounting, will be accomplished using inputs from all custodians. As required, CMS will establish standardized formats and appropriate numbering systems for all documents under HMB or FMB control.

4.3 BASELINE CHANGE

Direction to change the contents of a baseline document is given by the approval of a proposed RFC. The change request identifies the need for change and very often the actual changes are included as part of the RFC package. When advised that a change is approved, CMS will prepare the updated pages and the change package in accordance with the appropriate directive. Cosmetic and administrative documentation changes do not require control authority approval but will be included by CMS in the next change package.

4.3.1 REQUEST FOR CHANGE TO THE HEADQUARTERS FACILITY

R quests for Change (RFCs) to Headquarters Facility will be processed as outli ed in this document and Headquarters Request for Change (RFC) Instr ction.

4.3.2 FACILITY RELATED DOCUMENTS

C ange descriptions for installations affecting the facility will be descr ed in a hierarchy of documents. As the data from each document is captu ed in the next higher document, the lower document may be rescinded. The k y documents and their relationships are described below.

( ) Interface Drawing Requirement Package (IDR) -

The IDR consists of the initial set of instructions
garding a proposed change to the facility. The IDR should provide
fficient information to describe fully the requirements of the requestor
d allow coordination of the proposed change with other support
mponents, as appropriate.

) Facility Modification Plan (FMP) -

The FMP is an FMB-controlled document which establishes
e "build-to" change to the existing configuration. It uses the
formation contained in the IDR as a basis and serves to document all
formation required to complete the installation. Once the installation
s been completed, the FMP is rescinded by an RFC which also transfers
e final "as-built" data to the Facility Baseline Document.

) Facility Baseline Document (FBD) -

The FBD is an FMB-controlled document which is the top
vel baseline document describing all physical aspects of the facility
ong with certain major systems considered critical to operations.
dates to it are made via a revised RFC prepared by the Headquarters
erations Maintenance and Engineering Division (HOME) after the changes
the facility have been made; therefore, it is considered an "as-built"
seline.

) Facility Requirements Document (FRD)

The FRD is a FMB controlled document which is the top
evel requirements document describing the facility requirements for the
isting and new addition to the facility. Changes to the FRD are made
ia an RFC submitted to the FMB.

4.3.3 FACILITY RELATED DOCUMENTS CHANGE PROCEDURE

Requests for changes to the facility which impact controlled documentation are initiated by the preparation of an Interface Drawing Requirements Package (IDR) and/or a Request for Change (RFC). The responsibilities and steps for processing the facilities changes are described below and illustrated in Figure 2.

4.3.3.1 Originator of the Facility Change

The originator/requestor of a change to the facility is responsible for contacting CMS to coordinate the preparation of the necessary documentation to describe the change requirements and for the preparation of other documentation as described in this section and indicated in Figure 2.

4.3.3.2 Headquarters Operations Maintenance and Engineering Division (HOME)

The Headquarters Operations Maintenance and Engineering Division is responsible to coordinate all requests for changes to the current building, to the new building and for the preparation of Facility Modification Plans (FMPs). Space allocations, building modifications, renovations, relocation of conduits, and changes regarding utilities will be reviewed by the Configuration Management Secretariat (CMS) of HOME prior to either HMG or FMG approval or the entering into contractual agreements. CMS will determine through an initial review if either the Facilities Requirements Document (FRD), Facilities Baseline Document (FBD), or an existing FMP is impacted by the request for a facility change. Additionally, CMS will determine if an FMP is required by using the criteria for an FMP as established in the headquarters instruction concerning FMPs.

After review, coordination, and evaluation by CMS, requests will be forwarded to the appropriate configuration management board. If the FRD, FBD, or an existing FMP is not impacted and there is no requirement for a new FMP, HOME will prepare the necessary plans, conduct architectural and engineering studies if necessary, and contract for construction.

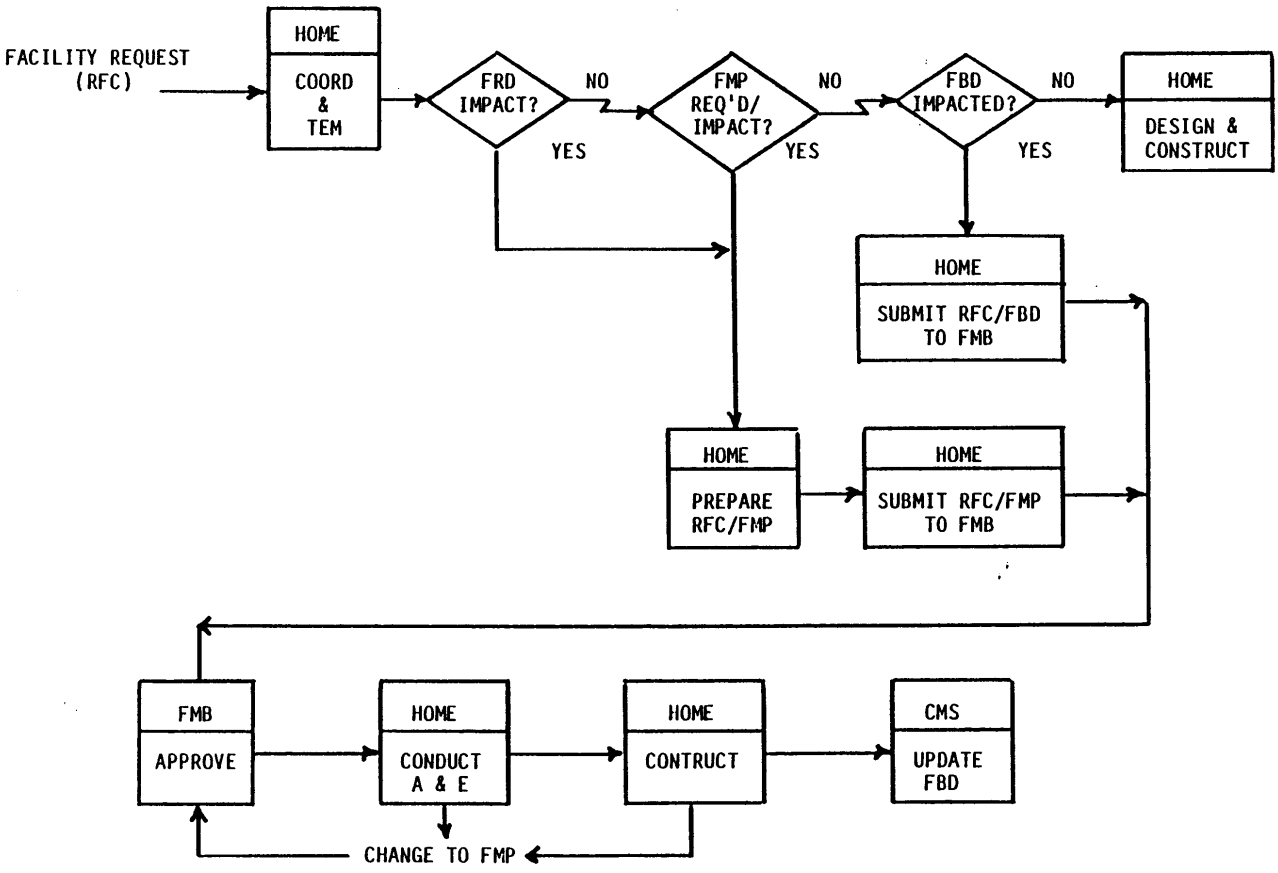

Figure 2. Headquarters Facility Renovation Procedure

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4.3.3.3 FMB Review and Approval of Facility Changes

A proposed facility change (and the IDR) that impacts the Facility Requirements Document (FRD) must be submitted via an RFC (prepared by the originator) to the FMB for review and approval. Upon FMB approval, the FMP is placed under FMB control and HOME may proceed with the A&E and construction phases. Changes made to the FMP during A&E or contruction phases must be submitted to the FMB for approval. Upon completion of construction, HOME will prepare an RFC to rescind the FMP and provide updating redlines to the Facility Baseline Document.

When a proposed facility change and IDR does not impact the FRD but does require an FMP, HOME will prepare FMP and the RFC for submittal to the FMG for approval. Upon FMG approval, the FMP is placed under FMG control and HOME may proceed with the A&E and construction phases as described in the above paragraph.

A proposed facility change that does not require an FMP but does impact the Facility Baseline Document (FBD) must be submitted via RFC, with redlines to the FBD, for FMB approval. Upon approval, HOME can proceed with A&E and construction phases. Modifications made to the approved changes during A&E or construction phases must be submitted by HOME to the FMB for approval. After completion of construction, HOME will prepare an RFC which will provide final redlines to the FBD if previously submitted redlines have been modified.

4.4 BASELINE CRITERIA

The following criteria will be used to determine the proper level of control whenever a candidate document, or its related configuration item, is being considered for configuration management control.

4.4.1 HMB CONTROL

(1) Headquarters Configuration Management Plan.
(2) Agency Space Allocation Document
(3) Other items as specified by HMB.

4.4.2 FMB CONTROL

(1) Technical documentation describing in-place capabilities, interfaces, and procedures (Headquarters Baseline).

(2) Formal documentation used to verify added/changed capabilities.

(3) Intra-Headquarters Interface Control Documents (ICDs) and technical interface documentation.

(4) Modifications to the facility structure, excluding changes to the interior walls within a component's area which do not form a part of the building structure or a part of a vault wall.

(5) The installation and/or the component allocation of technical equipment in the facility. For the purpose of this plan, the following types of equipment are considered technical equipment:

a. Computer centers

b. Communications hardware

c. Wang office equipment

d. Secure voice system

e. Non-secure phone network

f. Fire/security system

g. Operations critical areas

h. Screen rooms

i. Laboratories/clean rooms

j. Other items as specified by the FMG.

4.4.2 FMB Control, Continued

(6) Modifications to the facility electrical or mechanical systems required to support the technical equipment itemized in paragraph (5) above.

(7) The entirety of a data grid system including the Main Distribution Frame down to and including wall boxes (Data Drops).

4.4.3 OFFICE CONTROL

Any item not specifically mentioned above, such as:

(1) Intra-element documentation/procedures.

(2) Changes to and relocation of technical equipment providing that it can be accomplished without affecting the existing electrical or mechanical systems.

(3) Test procedures/reports documentation.

4.5 APPROVED BASELINE

Tables 1, 2, and 3 itemize the documents which are currently under HMB, FMB, or Office control, respectively. Each table shows the item's title/name, its control number, and the Headquarters organization having custodial (maintenance) responsibility for the item. As new items are approved for configuration management control, via RFCs approved by the change control authority, they will be added by CMS to the appropriate table.

TABLE 1

HMB CONFIGURATION CONTROL BASELINE

Title	Doc. No.	Custodian
Headquarters Configuration Management Plan	H90001	CMS
Agency Space Allocation Document	(TBD)	CMS

TABLE 2

FMB CONFIGURATION CONTROL BASELINE

Title	Doc. No.	Custodian
REQUIREMENTS		
New Building Requirements Document	(TBD)	CMS
General Facility Specification (original Hq Bldg)	(TBD)	CMS
BASELINE DOCUMENTS		
Facility Baseline Document	(TBD)	CMS
Operations Critical Areas	(TBD)	CMS
Vaulted Areas	(TBD)	CMS
Computer Center/s	(TBD)	CMS
TECHNICAL EQUIPMENT		
Secure Voice Net	(TBD)	CMS
Data Grid	(TBD)	CMS
Non-Secure Phone System	(TBD)	CMS
Fire/Security System	(TBD)	CMS
Screen Rooms	(TBD)	CMS
WORD PROCESSING EQUIPMENT		
Wang Office Equipment	(TBD)	CMS
TEST DOCUMENTS	(TBD)	CMS
INTERFACE DOCUMENTS	(TBD)	CMS
FACILITY MODIFICATION PLANS	(TBD)	CMS

TABLE 3

OFFICE CONFIGURATION CONTROL BASELINE

Title	Doc. No.	Custodian
(TBD)	(TBD)	(TBD)

SECTION 5

5.0 PRIORITY SYSTEM

5.1 PRIORITY SYSTEM USAGE

In order to assist in effectively applying the limited resources available to accomplish the most important configuration management tasks first, a priority system has been established. This system defines criteria which will be used in evaluating each operational configuration management item (i.e., RFC) submitted. Based on the assigned priority, due dates will be assigned to each item for completing the necessary actions/tasks.

5.2 PRIORITY LEVELS

The three priorities to be used are Emergency, Urgent, and Routine. The emergency priority will be assigned when the item involves the possible compromise of national security, hazardous conditions, or failure of headquarters to accomplish a primary function. The urgent priority will be assigned when the item involves mission effectiveness, potentially hazardous conditions, significant contractual requirements, serious schedule slippage, significant increased costs, or when time is of the essence to achieve net life cycle savings in excess of one hundred thousand dollars. The routine priority will be assigned when neither of the other two priorities are applicable.

SECTION 6

6.0 CHANGE REQUEST SYSTEM

6.1 OVERVIEW

The change request system is designed to provide a systematic process for the evaluation, coordination, and disposition of all proposed changes to the established baselines and their associated configuration items. The system requires standardized forms to clearly and concisely document the proposed changes, an administrative procedure to ensure the orderly consideration of proposed changes, and responsible control authorities to provide direction regarding each proposed change.

6.2 PROCESSING

In general the process in making a change to a configuration management controlled document is as follows:

a. An initiator identifies a need for change, determines its priority, and documents the change on a Request for Change (RFC) form using a checklist provided by CMS.

b. The Office Chief reviews the proposed change and, depending on the level of control of any controlled documents affected, either approves it for implementation or authorizes submittal to the appropriate control board, via CMS.

c. CMS logs and, if a board approval is required, conducts Technical Evaluation Meetings (TEMs), provides an integration evaluation, and forwards the RFC and its evaluation to the appropriate control board.

d. HMB or FMB, as appropriate, reviews and provides final direction.

e. Change Implementor(s) performs the assigned action(s).

f. CMS provides tracking, status acounting, reporting, and closure activities.

6.3 PRIORITY PROCESSING

The timelines in processing an RFC shall be assigned based on the priority. Unless circumstances dictate otherwise, the following guidelines will be used in assigning due dates for RFC actions:

PRIORITY	DUE DATE
Emergency (E)	Review by each higher level of control within 24 hours of logging in by CMS.
Urgent (U)	Review by each higher level of control within seven (7) days.
Routine (R)	Review as part of the normal administrative flow which maximizes cost effectiveness within program constraints.

In order to expedite critical RFCs requiring board direction, the following short approval cycle options may be exercised at the discretion of the final approval authority (the Board Chairman):

a. Call a special ad hoc meeting(s).

b. Waiver of lower level review/concurrence (approved by board chairman alone).

c. Direct CMS to walk the RFC around to each board member for review/signature.

6.4 DOCUMENTATION

CMS will establish a unique numbering system for all change forms. Board review decisions will be recorded on a separate form, the Configuration Management Board Directive (CMBD), will serve as authorization documentation. Each change request will be documented on a form designed by CMS. As a minimum, the Request for Change (RFC) forms shall contain:

a. Title
b. Originator identification
c. Priority
d. Type of change (i.e., permanent or temporary)
e. Recommended implementation date
f. Need for change
g. Description of change
h. Consequences if not implemented and alternatives
i. Portion of the facility affected
j. Cost/Schedule estimates
k. Red-lined changes to controlled documents affected (if appropriate and available).

6.5 LEVELS OF DETAIL

The level of detail contained in an RFC will vary according to the complexity of the change and the expertise of the individual completing the form. The individual preparing the form is responsible for coordinating each change and obtaining the necessary information, if available. As part of the implementing instruction, CMS will prepare and maintain a checklist which itemizes, in detail, all factors to be considered when preparing an RFC.

When the detail provided in the initial RFC is insufficient to direct implementation actions, additional iterations may be required by the approval authority. In such cases, the additional detail will be documented as a revision RFC.

SECTION 7

7.0 STATUS ACCOUNTING

7.1 STATUS ACCOUNTING TASKS

In order to assist all personnel involved in configuration management at Headquarters, CMS will maintain status records with sufficient detail so that the history of each uniquely controlled form and document is available. A summary of these records will be issued on a periodic basis so that key information is immediately available to interested personnel. In addition, custodians will maintain records and issue periodic reports for all hardware, software and facility items under their control.

7.2 STATUS ACCOUNTING REPORTS

Table 4 defines items for which records shall be maintained, the information which shall be reported, the periodicity of the reports, and a generalized distribution list.

TABLE 4

STATUS REPORT REQUIREMENTS

ITEM	MINIMUM REPORTABLE DATA	MINIMUM ISSUANCE	ROUTINE DISTRIBUTION
RFC	Number, Title Originator, Status, Status Date, Actionee, Due Date	Twice monthly	Determined by CMS
Controlled Documents	Number, Title, Approved RFC, Incorporation Status, Status Date, Document Revision Status	Monthly	Determined by CMS

SECTION 8

8.0 CONFIGURATION MANAGEMENT AUDITS

Periodically, the Headquarters Configuration Management Secretariat (CMS) will conduct audits of element configuration management efforts to assure compliance with this plan and with the instructions and procedures established in support of the plan. The audits will consist of an announced measurement of conformance of personnel, product, or processes to those pre-established policies, procedures, instructions, or standards comprising the Configuration Management System. The audits will be performed to assess the following:

a. Status and traceability of the implementation of approved changes into the documentation and the related configuration items.

b. Compliance with configuration management policies, procedures, and practices.

At the conclusion of the audit a report will be sent to the organization audited outlining the specific items audited, findings of the audit, and agreed-to corrective action. Copies will also be distributed to appropriate levels of management.